



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D4202-1

Job Sheet 195279



Part No: D4202-1

Job Qty: 750 pcs

Part Name: Spacer



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 5/16/19

Job Tracking No:

Due Date: 10/7/19

Created By: Kimberley Guerin

Type: Stock

Description:

Note: DWG REV C IPP REV:A NEW ISSUE 10-12-07 JLM VERIFIED:DD IPP REV:B AS PER REV B 11-04-05 JLM
VERIFIED BY:DD IPP Rev:C 11.12.19 PER DWG REV.C DD verf:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
170	Purchasing	750 pcs	10/7/19	10/7/19	0.00	0.00	Purchasing - 1		
							Purchasing - 2		
							Purchasing - 3		
180	Packaging 2-1 - Receive - B4B	750 pcs	10/7/19	10/7/19	0.00	0.00	Packaging 2 - 1 - B4B		
							Packaging 2 - 2 - B4B		
							Packaging 2 - 3 - B4B		
							Packaging 2 - 5 - B4B		
							Packaging 2 - 4 - B4B		
							Packaging 2 - 6 - B4B		
							Packaging 2 - 7 - B4B		
							Packaging 2 - 8 - B4B		
							Packaging 2 - 9 - B4B		
							Packaging 2 - 10 - B4B		
							Packaging 2 - 11 - B4B		
							Packaging 2 - 12 - B4B		
							Packaging 2 - 13 - B4B		
							Packaging 2 - 14 - B4B		
							Packaging 2 - 15 - B4B		
							Packaging 2 - 16 - B4B		
							Packaging 2 - 17 - B4B		
							Packaging 2 - 18 - B4B		
							Packaging 2 - 19 - B4B		



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S220981



Part: D4202-1

Job No: 195279

Serial No/Batch: S220981

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Date: 10/08/19

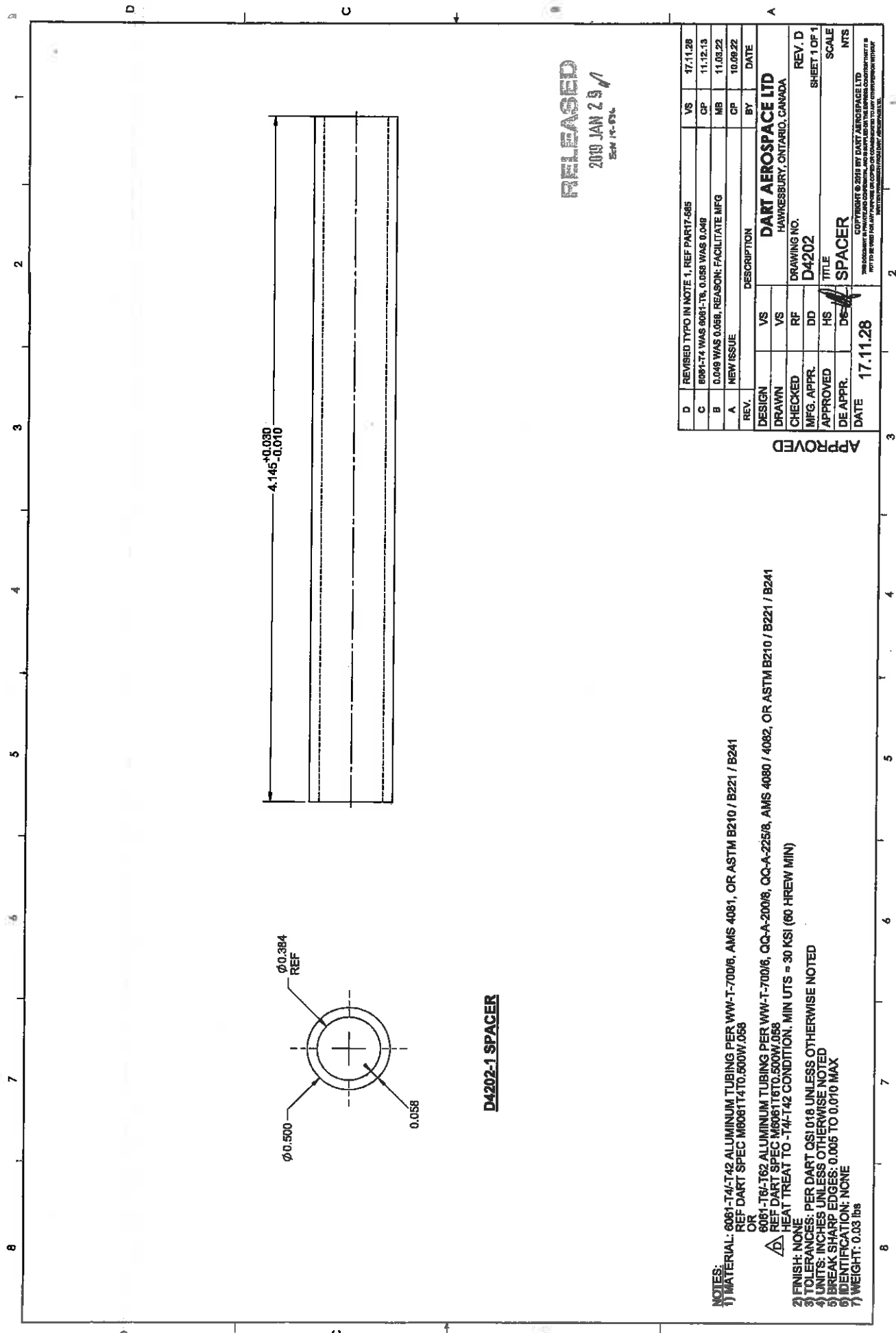
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QC 21 - SA - 53

https://www.plexonline.com/1461f641-a90a-4912-917c-9bff1caa2c00/Plexus_Control/Report_View/Viewer_2.asp?URL=https://www.plexonline.com/1461f64... 3/4

Part Specifications					
Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Spacer	0.500inches $\pm$ 0.010	0.510 0.490	Product	
2	Spacer	0.058inches $\pm$ 0.010	0.068 0.048	Product	
3	Spacer	4.145inches + 0.030 - 0.010	4.175 4.135	Product	

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D4202-1 SPACER

- NOTES:
- 1) MATERIAL: 6061-T4/T42 ALUMINUM TUBING PER WW-T-700/6, AMS 4081, OR ASTM B210 / B221 / B241
REF DART SPEC M6061T4T0.500W.058
OR
6061-T6/T62 ALUMINUM TUBING PER WW-T-700/6, QQ-A-200/6, QQ-A-225/6, AMS 4080 / 4082, OR ASTM B210 / B221 / B241
REF DART SPEC M6061T6T0.500W.058
HEAT TREAT TO -T4-T42 CONDITION, MIN UTS = 30 KSI (60 HREW MIN)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 016 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.03 lbs

APPROVED

REV.		DESCRIPTION	VS	DATE
D	REVISED TYPO IN NOTE 1, REF PART-585		VS	17.11.28
C	8061-T4 WAS 8061-T6, 0.058 WAS 0.046		CP	11.12.13
B	0.046 WAS 0.058, REASON: FACILITATE MFG		MB	11.03.22
A	NEW ISSUE		CP	10.09.22
DESIGN		VS	BY	DATE
DRAWN		VS		
CHECKED		RF		
MFG. APPR.		DD		
APPROVED		HS		
DE APPR.		DS		
DATE	17.11.28			
DART AEROSPACE LTD				
HAWKESBURY, ONTARIO, CANADA				
DRAWING NO. D4202				
REV. D SHEET 1 OF 1				
TITLE SPACER				
SCALE NTS				
COPYRIGHT © 2018 BY DART AEROSPACE LTD				
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.				

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2019 JAN 29
5:44 PM EST



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043487



Supplier: ETM001-VC
E.T.M. Industries Inc.
310 Hall Avenue, Box 610
Renfrew
ON
K7V 4E7 Canada
Phone: 613-432-6136
Fax: 613-432-8212

PO No: POHB043487
PO Date: 5/17/19
Due Date: 5/15/20
Purchase Order Revision:
Revision Date:
Ship-To Contact: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pynt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	195270	D2579P			Crossbolt Spacer : as per Dwg D2579 RevE	Received	-	9/6/19	50 Ea	50 Ea	0 Ea	\$2.90/Ea	\$0.00
2	195283	D2579P			Crossbolt Spacer : as per Dwg D2579 RevE	Firmed	-	11/15/19	50 Ea	0 Ea	50 Ea	\$2.90/Ea	\$145.00
3	195294	D2579P			Crossbolt Spacer : as per Dwg D2579 RevE	Firmed	-	2/14/20	50 Ea	0 Ea	50 Ea	\$2.90/Ea	\$145.00
4	195305	D2579P			Crossbolt Spacer : as per Dwg D2579 RevE	Firmed	-	5/15/20	50 Ea	0 Ea	50 Ea	\$2.90/Ea	\$145.00
5	195271	D3681-1P			Spacer : as per Dwg D3681-1 RevA	Received	-	9/6/19	250 Ea	250 Ea	0 Ea	\$3.75/Ea	\$0.00
6	195284	D3681-1P			Spacer : as per Dwg D3681-1 RevA	Firmed	-	11/15/19	250 Ea	0 Ea	250 Ea	\$3.75/Ea	\$937.50

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Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
7	195295	D3681-1P			Spacer : as per Dwg D3681-1 RevA	Firmed	-	2/14/20	250 Ea	0 Ea	250 Ea	\$3.75/Ea	\$937.50
8	195306	D3681-1P			Spacer : as per Dwg D3681-1 RevA	Firmed	-	5/15/20	250 Ea	0 Ea	250 Ea	\$3.75/Ea	\$937.50
9	195272	D3903-1P			Spacer : as per Dwg D3903-1 RevB	Received	-	9/6/19	200 Ea	200 Ea	0 Ea	\$3.75/Ea	\$0.00
10	195285	D3903-1P			Spacer : as per Dwg D3903-1 RevB	Firmed	-	11/15/19	200 Ea	0 Ea	200 Ea	\$3.75/Ea	\$750.00
11	195296	D3903-1P			Spacer : as per Dwg D3903-1 RevB	Firmed	-	2/14/20	200 Ea	0 Ea	200 Ea	\$3.75/Ea	\$750.00
12	195307	D3903-1P			Spacer : as per Dwg D3903-1 RevB	Firmed	-	5/15/20	200 Ea	0 Ea	200 Ea	\$3.75/Ea	\$750.00
13	195273	D3490-1P			Crossbolt Spacer : as per Dwg D3490-1 RevA	Received	-	9/6/19	101 Ea	101 Ea	0 Ea	\$3.90/Ea	\$0.00
Line Item Note Material WW-T-700/6 can be use													
14	195286	D3490-1P			Crossbolt Spacer : as per Dwg D3490-1 RevA	Firmed	-	11/15/19	100 Ea	0 Ea	100 Ea	\$3.90/Ea	\$390.00
Line Item Note Material WW-T-700/6 can be use													



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Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
15	195297	D3490-1P			Crossbolt Spacer : as per Dwg D3490-1 RevA	Firmed	-	2/14/20	100 Ea	0 Ea	100 Ea	\$3.90/Ea	\$390.00
Line Item Note: Material WW-T-700/6 can be use													
16	195308	D3490-1P			Crossbolt Spacer : as per Dwg D3490-1 RevA	Firmed	-	5/15/20	100 Ea	0 Ea	100 Ea	\$3.90/Ea	\$390.00
Line Item Note: Material WW-T-700/6 can be use													
17	195275	D2743P			Crossbolt Spacer : as per Dwg D2743 RevB	Received	-	9/6/19	250 Ea	250 Ea	0 Ea	\$2.95/Ea	\$0.00
18	195287	D2743P			Crossbolt Spacer : as per Dwg D2743 RevB	Firmed	-	11/15/19	250 Ea	0 Ea	250 Ea	\$2.95/Ea	\$737.50
19	195298	D2743P			Crossbolt Spacer : as per Dwg D2743 RevB	Firmed	-	2/14/20	250 Ea	0 Ea	250 Ea	\$2.95/Ea	\$737.50
20	195309	D2743P			Crossbolt Spacer : as per Dwg D2743 RevB	Firmed	-	5/15/20	250 Ea	0 Ea	250 Ea	\$2.95/Ea	\$737.50
21	195276	D2649P			Crossbolt Spacer : as per Dwg D2649 RevB1	Received	-	9/6/19	75 Ea	75 Ea	0 Ea	\$2.25/Ea	\$0.00
22	195288	D2649P			Crossbolt Spacer : as per Dwg D2649 RevB1	Firmed	-	11/15/19	75 Ea	0 Ea	75 Ea	\$2.25/Ea	\$168.75



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Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
23	195299	D2649P			Crossbolt Spacer : as per Dwg D2649 RevB1	Firmed	-	2/14/20	75 Ea	0 Ea	75 Ea	\$2.25/Ea	\$168.75
24	195310	D2649P			Crossbolt Spacer : as per Dwg D2649 RevB1	Firmed	-	5/15/20	75 Ea	0 Ea	75 Ea	\$2.25/Ea	\$168.75
25	195277	D3275-1P			Crossbolt Spacer : as per Dwg D3275-1 RevA1	Received	-	9/6/19	62 Ea	62 Ea	0 Ea	\$2.25/Ea	\$0.00
Line Item Note Material WW-T-700/6 can be use													
26	195289	D3275-1P			Crossbolt Spacer : as per Dwg D3275-1 RevA1	Firmed	-	11/15/19	62 Ea	0 Ea	62 Ea	\$2.25/Ea	\$139.50
Line Item Note Material WW-T-700/6 can be use													
27	195300	D3275-1P			Crossbolt Spacer : as per Dwg D3275-1 RevA1	Firmed	-	2/14/20	62 Ea	0 Ea	62 Ea	\$2.25/Ea	\$139.50
Line Item Note Material WW-T-700/6 can be use													
28	195311	D3275-1P			Crossbolt Spacer : as per Dwg D3275-1 RevA1	Firmed	-	5/15/20	62 Ea	0 Ea	62 Ea	\$2.25/Ea	\$139.50
Line Item Note Material WW-T-700/6 can be use													
29	195278	D5518-1P			Crossbolt Spacer : as per Dwg D5518-1 RevA	Firmed	-	9/6/19	50 Ea	0 Ea	50 Ea	\$2.20/Ea	\$110.00



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Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
30	195290	D5518-1P			Crossbolt Spacer : as per Dwg D5518-1 RevA	Firmed	-	11/15/19	50 Ea	0 Ea	50 Ea	\$2.20/Ea	\$110.00
31	195301	D5518-1P			Crossbolt Spacer : as per Dwg D5518-1 RevA	Firmed	-	2/14/20	50 Ea	0 Ea	50 Ea	\$2.20/Ea	\$110.00
32	195312	D5518-1P			Crossbolt Spacer : as per Dwg D5518-1 RevA	Firmed	-	5/15/20	50 Ea	0 Ea	50 Ea	\$2.20/Ea	\$110.00
33	195279	D4202-1P			Spacer : as per Dwg D4202-1 RevD	Firmed	-	9/6/19	750 Ea	0 Ea	750 Ea	\$3.10/Ea	\$2,325.00
						X750		OCT 08 2019				DAS 61 9-89	DP
34	195291	D4202-1P			Spacer : as per Dwg D4202-1 RevD	Firmed	-	11/15/19	750 Ea	0 Ea	750 Ea	\$3.10/Ea	\$2,325.00
35	195302	D4202-1P			Spacer : as per Dwg D4202-1 RevD	Firmed	-	2/14/20	750 Ea	0 Ea	750 Ea	\$3.10/Ea	\$2,325.00
36	195313	D4202-1P			Spacer : as per Dwg D4202-1 RevD	Firmed	-	5/15/20	750 Ea	0 Ea	750 Ea	\$3.10/Ea	\$2,325.00
37	195280	D4720-1P			Spacer : as per Dwg D4720-1 RevB	Received	-	9/6/19	249 Ea	249 Ea	0 Ea	\$3.00/Ea	\$0.00



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Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
38	195292	D4720-1P			Spacer : as per Dwg D4720-1 RevB	Firmed	-	11/15/19	250 Ea	0 Ea	250 Ea	\$3.00/Ea	\$750.00
39	195303	D4720-1P			Spacer : as per Dwg D4720-1 RevB	Firmed	-	2/14/20	250 Ea	0 Ea	250 Ea	\$3.00/Ea	\$750.00
40	195314	D4720-1P			Spacer : as per Dwg D4720-1 RevB	Firmed	-	5/15/20	250 Ea	0 Ea	250 Ea	\$3.00/Ea	\$750.00
41	195281	D4686-1P			Spacer : as per Dwg D4686-1 RevB	Received	-	9/6/19	75 Ea	75 Ea	0 Ea	\$3.75/Ea	\$0.00
42	195293	D4686-1P			Spacer : as per Dwg D4686-1 RevB	Firmed	-	11/15/19	75 Ea	0 Ea	75 Ea	\$3.75/Ea	\$281.25
43	195304	D4686-1P			Spacer : as per Dwg D4686-1 RevB	Firmed	-	2/14/20	75 Ea	0 Ea	75 Ea	\$3.75/Ea	\$281.25
44	195315	D4686-1P			Spacer : as per Dwg D4686-1 RevB	Firmed	-	5/15/20	75 Ea	0 Ea	75 Ea	\$3.75/Ea	\$281.25
Grand Total:												\$22,638.50	



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PURCHASE ORDER

POHB043487



Order Notes

Procurement Quality Clauses

- A005 RIGHT OF ENTRY
- A008 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION SENT TO DART AEROSPACE)
- A012 CHEMICAL AND PHYSICAL TEST REPORTS
- A016 PERSONNEL QUALIFICATION
- A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
- A026 CERTIFICATION OF MATERIAL CONFORMANCE
- A041 QUALITY MANAGEMENT SYSTEM
- A042 DART NOTIFICATION BY SUPPLIER
- A043 RETENTION OF QUALITY DOCUMENT
- A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
- A049 SUPPLIER AWARENESS

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 10/8/19 2:03 PM Dart.paul.derick

E.T.M. INDUSTRIES INC.
310 HALL AVENUE
BOX 610
RENFREW, ON K7V 4E7
Canada

Ph: 613-432-6136

Fax: 613-432-8212

Pack List

Number: 144402

Date: 04-Oct-19

To

DART AEROSPACE
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
Canada

Ship To

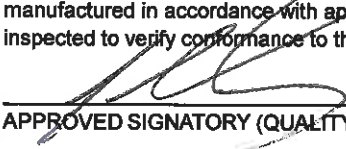
Patrick Lussier
DART AEROSPACE
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-5246

Ph: 613-632-5200

Fax: 613-632-5246

Terms		Ship Via	
Net 30 days			
Quantity	Description		
750 each	Part: D4202-1P SPACER SO: 25664 lot 107197	Rev: D PO: POHB043487 Line: 33	DAS 61 8-89
RECEIVED OCT 07 2019 DART AEROSPACE LTD. CERTIFICATE OF COMPLIANCE "I hereby certify that the material described above is in conformance with applicable physical and dimensional specifications; that it was manufactured in accordance with applicable process specifications; and has been inspected to verify conformance to those specifications."  APPROVED SIGNATORY (QUALITY ASSURANCE)			

KAISER ALUMINUM FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CUSTOMER PO NUMBER: M49401372-1		CUSTOMER PART NUMBER: 42276		PRODUCT DESCRIPTION: Drawn Seamless Tube/Pipe	
KAISER ORDER NUMBER: 228575	LINE ITEM: 001	SHIP DATE: 06/10/2019	KAISER LOT NUMBER: F00301473	ALLOY: 6061	TEMPER: T6
WEIGHT SHIPPED: 466.000 LB	QUANTITY: 408.000 PCS	B/L NUMBER: 233811	DIAM/DAF/THKNS: 	WIDTH: 	LENGTH: 12.000 FT
SHIP TO: TW METALS INC 235 WEST TUBEWAY DRIVE CAROL STREAM, IL 60188 USA			SOLD TO: TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA		

Actual Physical Properties

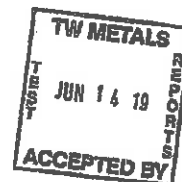
REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON%IACS	BEND
F00301473	0001	0001	49.5	41.3	21.0	N/A	N/A	N/A
F00301473	0002	0001	49.4	41.0	22.0	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D23153	.60	.29	.24	.05	.98	.10	.06	.03	.00	.00	.00	.01	.02

Applicable Requirements:

Description: OD: 0.5000"; Wall: 0.0580"; Round @
AMS4082P AMS-WW-T-700/6C ASTM B210-12 WW-T-700/6F
WE TAKE EXCEPTION TO PARA. 5.2.1., Per AMS4082P, WAS NOT OILED.
This Product Complies to FAR BAA, DFARS BAA, FAR TAA
COMPLIES TO DIN EN 10204 JAN 2005
No Weld Repair. Mercury Free.



Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA
(DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5
TRADE AGREEMENTS)

Plant Serial: 00031882
Kaiser Order Number: 228575
Line Item: 001



VAC AERO
INTERNATIONAL INC

CERTIFICAT DE CONFORMITÉ / CERTIFICATE OF CONFORMITY

MTL 164577-1

NO. T.P.S. / GST NO. : R105468102

09/12/2019

MM / DD / YYYY

PAGE : 1

HEAD OFFICE
1371 SPEERS ROAD, OAKVILLE, ONTARIO
CANADA L6L 2K5
TEL: (905) 827-4171 FAX: (905) 827-7489

☒ QUEBEC DIVISION
7450 RUE VÉRITÉ STREET, ST. LAURENT, QUÉBEC
CANADA H4S 1C5
TEL: (514) 334-4240 FAX: (514) 334-6269

VENDU À: 2ETM01
BILL TO: E T M INDUSTRIES INC
310 HALL AVENUE BOX 610
RENFREW, ONTARIO

EXPÉDIÉ À:
SHIP TO: E T M INDUSTRIES INC
310 HALL AVENUE
RENFREW, ONTARIO

K7V 4E7

K7V 4E7

EXPÉDIÉ LE / DATE SHIPPED	EXPÉDIÉ PAR /SHIP VIA	F.A.B. / F.O.B.
09/12/2019	THEIR TRUCK	
NO. DE COMMANDE DU CLIENT / CUSTOMER P/O NO.		TERMES / TERMS
115451		NET 30 DAYS

NO D'ARTICLE PART No.	DESCRIPTION DU PRODUIT DESCRIPTION	MU UOM	QTEE COMM. QTY ORD.	QTEE EXP. QTY SHPD.	TEST RESULTS
D4686-1P	SPACER REV: B JOB NO. 107199	ea	61	61	
D4720-1P	SPACER REV: B JOB NO. 107198	ea	167	167	
Process Specifications: MATERIAL: 6061-T6 WM-T-700/6 AMS4080 SOLUTION HEAT TREATED AT 985+/-10F FOR 50-55 MIN. FURNACE #4 AND WATER QUENCHED (QUENCH DELAY 8 SECONDS AND FINAL QUENCH TEMPERATURE 78-82 F) THEN NATURAL AGING AT ROOM TEMPERATURE TO T42 CONDITION PER AMS 2770 N INSPECTED PER AMS 2658 D >>> REFERENCES: REPORT #T-164577-2 REPORT #T-164577-3 REPORT #T-164577-4					

RECEIVED

SEP 12 2019

**PARTIAL
SHIPMENT**

TOUS LES PARAMÈTRES DES CYCLES DE TRAITEMENT THERMIQUE ONT ÉTÉ VÉRIFIÉS SUR LES CHARTES DE FOUR ET RENCONTRENT LES EXIGENCES STIPULÉES PAR LE CLIENT
ALL HEAT TREATING CYCLE PARAMETERS WERE VERIFIED ON FURNACE CHARTS AND ARE IN COMPLIANCE WITH CUSTOMER REQUIREMENTS.

Par la présente, je certifie que le matériel de a été inspecté et vérifié et est conforme à toutes les caractéristiques et conditions demandées
dans le contrat et/ou sur le bon de commande.

I hereby certify that the material covered by this release note has been inspected and tested and conforms to all specifications relevant
thereto in accordance with the conditions of the contract / or purchase order.

POUR ET AU NOM DE, VAC AERO INTERNATIONAL INC.

Personne autorisée au contrôle de qualité
Authorized Q.C. Inspector



TRAITEMENTS THERMIQUES SOUS VIDE - NITRURATION - MÉTALLISATION - PROCÉDÉS SPÉCIAUX
VACUUM BRAZING - HEAT TREATING - SPECIAL PROCESSING - FURNACE EQUIPMENT
TURBINE COMPONENT OVERHAUL - PLASMA AND OTHER COATINGS





VAC AERO INTERNATIONAL
ALUMINUM TEMPER INSPECTION REPORT

Customer : ETM INDUSTRIES

Report No : T-164577-3

Part Number : D4686-1P

Customer P.O. No : 115451

Batch No : 164577-3

Testing Method(s) : VAIM 7101 Iss. 33

Testing Specification(s) : AMS 2658 rev D

Equipment used

Hardness : INDENTRON 600

Temperature (°F): 69

Conductivity : N/A

Humidity (%): 50

Sampling : ☐

100% testing : ☒

HARDNESS RESULTS

65,0 - 70,0 HREw
(67,0 - 70,0 HR15Tw)

REQUIREMENTS

60 HREw min.
(64,5 HR15Tw min.)

CONDUCTIVITY RESULTS

N/A (too small to test)

REQUIREMENTS

35,5 - 43,0 % IACS

DISPOSITION: RESULTS OBTAINED MEET CUSTOMER REQUIREMENTS

Inspected by:

GV



Approved by:

MC



Date: 12 SEPTEMBER 2019

Date: 12 SEPTEMBER 2019

SEP 12 2019

ETM Industries Inc

Page 1 of 3

AS9102 Revision B First Article Inspection

Form 1: Part Number Accountability

1. Part Number D4202-1P	2. Part Name SPACER	3. Serial Number N/A	4. FAI Number N/A
5. Part Revision Level REV. D	6. Drawing Number D4202	7. Drawing Revision Level REV.D	8. Additional Changes N/A
9. Manufacturing Process Reference 107197	10. Organization Name ETM Industries Inc.	11. Supplier Code N/A	12. P.O. Number POHB043487, LN33
13. Detail FAI ☒ Assembly FAI	14. Full FAI ☒ Partial FAI <i>Reason for Partial FAI:</i> Not Applicable	Baseline Part Number including Revision Level N/A	
a) If above part number is a detail part only, go to Field 19 b) If above part number is an assembly, go to the "Index" section below.			
INDEX of part numbers or sub assembly numbers required to make the assembly noted above.			
15. Part Number N/A	16. Part Name N/A	17. Part Serial Number N/A	18. FAI Report Number N/A
1) Signature indicates that all characteristics are accounted for; meet drawing requirements or are properly documented for disposition.			
2) Also indicate if the FAI is complete per Section 5.4: ☒ FAI Complete ☐ FAI Not Complete			
19. Signature Mike Morin			20. Date 10/04/19
21. Reviewed by			22. Date
23. Customer Approval			24. Date

ETM Industries Inc

AS9102 Revision B First Article Inspection

Form 2: Product Accountability – Raw Material, Specifications and Special Process(es),
Functional Testing

1. Part Number D4202-1P	2. Part Name SPACER		3. Serial Number N/A		4. FAI Report Number N/A
5. Material or Process – Name	6. Specification Number	7. Code	8. Special Process Supplier Code	9. Customer Approval Verification (Yes/No/N/A)	10. Certificate of Conformance Number
MAKE FROM; ALUMINUM TUBING	6061-T4/T42 ALUMINUM TUBING PER WW-T-700/6, AMS 4081 OR ASTM B210/B221/B241 REF DART SPEC M6061T4T0.500W.058 OR 6061-T6/-T62 ALUMINUM TUBING PER WW-T-700/6, QQ- A-200/8, QQ-A-225/8 AMS 4080/4082, OR ASTM B210/B221/B241. B241 REF DART SPEC M6061T4T0.500W.058. HEAT TREAT TO -T4/-T42 CONDITION. MIN UTS = 30 KSI(60 HREW MIN)	N/A	N/A	N/A	KAISER ALUMINUM FABRICATED PRODUCTS: LOT #F00301473
HEAT TREAT	HEAT TREAT TO -T4/-T42 CONDITION. MIN UTS = 30 KSI(60 HREW MIN)				VAC AERO C OF C # MTL 164577-1
11. Functional Test Procedure Number	12. Acceptance report number, if applicable				
Not Applicable	Not Applicable				
13. Comments					
14. Prepared By Mike Morin			15. Date 10/04/19		

1. Part Number D4202-1P		2. Part Name SPACER		3. Serial Number N/A		4. FAI Report N/A	
Characteristic Accountability				Inspection / Test Results			
5. Char. No.	6. Reference Location	7. Characteristic Designator	8. Requirement	9. Results	10. Designated Tooling	11. Non Conformance Number	14. Reference Documents
1	SHEET 1 of 1	N/A	6061-T4/T42 ALUMINUM TUBING PER WW-T-700/6, AMS 4081 OR ASTM B210/B221/B241 REF DART SPEC M6061T4T0.500W.058 OR 6061-T6/-T62 ALUMINUM TUBING PER WW-T-700/6, QQ-A-200/8, QQ-A-225/8 AMS 4080/4082, OR ASTM B210/B221/B241. B241 REF DART SPEC M6061T4T0.500W.058. HEAT TREAT TO -T4/-T42 CONDITION. MIN UTS = 30 KSI(60 HREW MIN)	ACCEPT	KAISER ALUMINUM FABRICATED PRODUCTS: LOT #F00301473	N/A	C of C #F00301473
2	SHEET 1 of 1	N/A	TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED	ACCEPT	VERIFY	N/A	N/A
3	SHEET 1 of 1	N/A	UNITS:INCHES UNLESS OTHERWISE NOTED	ACCEPT	VERIFY	N/A	N/A
4	SHEET 1 of 1	N/A	BREAK SHARP EDGES: 0.005 TO 0.010 MAX	ACCEPT	VERIFY	N/A	N/A
5	SHEET 1 of 1	N/A	WEIGHT: 0.03 LBS	.032	WEIGH SCALE	N/A	N/A
6	SHEET 1 of 1	N/A	4.145 +0.030/-0.010	4.159	HEIGHT GAUGE	N/A	N/A

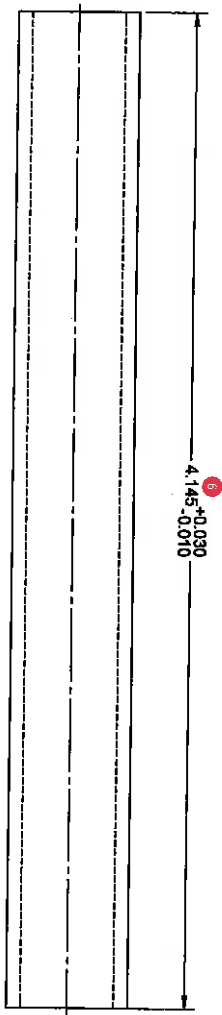
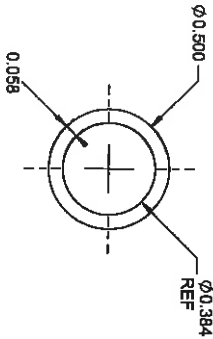
The signature indicates that all characteristics are accounted for; meet drawing requirements or are properly documented for disposition.

12. Prepared By

Mike Morin

13. Date

10/04/19



D4202-1 SPACER

- NOTES:
- 1) MATERIAL: 6061-T4-T42 ALUMINUM TUBING PER WW-T-700/6, AMS 4081, OR ASTM B210 / B221 / B241
REF DART SPEC M6081T4T0.500W/056
 - OR
6061-T6-T62 ALUMINUM TUBING PER WW-T-700/6, QQ-A-200/6, QQ-A-225/6, AMS 4080 / 4082, OR ASTM B210 / B221 / B241
REF DART SPEC M6081T6T0.500W/056
 - HEAT TREAT TO -T4-T42 CONDITION, MIN UTS = 30 KSI (60 HREW MIN)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.03 lbs

APPROVED

DESIGN	VS	VS	VS	17-11-28
DRAWN	VS	VS	VS	17-11-28
CHECKED	RF	RF	RF	11-02-19
MFG. APPR.	DD	DD	DD	11-02-22
APPROVED	HS	HS	HS	10-08-22
DE APPR.	DS	DS	DS	
DATE	17-11-28			
DART AEROSPACE LTD				
HAMMERSBURY, ONTARIO, CANADA				
DRAWING NO. D4202				
TITLE SPACER				
REV. D				
SHEET 1 OF 1				
SCALE				
NTS				

CONTROLLED COPY

RELEASED
2019 JAN 29
S/N 14-5714

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